

**CLAIMS**

1. A process for preparing a chopped strand mat, comprising:
  - 5 - a step of dispersing, in a white water, chopped strands that are dried after sizing with a sizing liquid comprising an organosilane and a film former; then
  - 10 - a step of forming a web by passing the dispersion over a forming wire through which the white water is drained, the strands being retained on said wire; then
  - a step of applying a binder; and then
  - 15 - a heat treatment step.
2. The process as claimed in the preceding claim, characterized in that the dried chopped strands contain less than 0.2% water by weight.
- 20 3. The process as claimed in the preceding claim, characterized in that the dried chopped strands contain less than 0.1% water by weight.
- 25 4. The process as claimed in one of the preceding claims, characterized in that the film former has a molecular mass of between 10000 and 100000 and, after drying at 105°C for 2 hours, has a solubility in acetone at 20°C ranging from 50 to 95%.
- 30 5. The process as claimed in one of the preceding claims, characterized in that the strands have a length ranging from 20 mm to 110 mm.
- 35 6. The process as claimed in one of the preceding claims, characterized in that, on passing onto the forming wire, the strands are dispersed in white water in an amount from 0.06 to 1% by weight of

the sum of the weights of the strands and of the white water.

- 5 7. The process as claimed in the preceding claim, characterized in that, on passing onto the forming wire, the strands are dispersed in white water in an amount from 0.1 to 1% by weight of the sum of the weights of the strands and of the white water.
- 10 8. The process as claimed in one of the preceding claims, characterized in that the white water includes a thickener in an amount such that the white water has a viscosity at 20°C of between 1 and 20 mPa.s.
- 15 9. The process as claimed in the preceding claim, characterized in that the white water includes a thickener in an amount such that the white water has a viscosity at 20°C of between 5 and 12 mPa.s.
- 20 10. The process as claimed in one of the preceding claims, characterized in that the binder is applied in an amount such that the mat contains between 2 and 20% binder by weight.
- 25 11. The process as claimed in one of the preceding claims, characterized in that the binder is applied in an amount such that the mat contains between 3 and 6% binder by weight.
- 30 12. The process as claimed in one of the preceding claims, characterized in that the heat treatment is carried out by heating between 140 and 250°C.
- 35 13. The process as claimed in one of the preceding claims, characterized in that the mat has a mass per unit area of between 50 and 1100 g/m<sup>2</sup>.

14. The process as claimed in the preceding claim, characterized in that the mat has a mass per unit area of between 70 and 150 g/m<sup>2</sup>.
- 5 15. The process as claimed in one of the preceding claims, characterized in that the strands comprise glass.
- 10 16. The process as claimed in the preceding claim, characterized in that, at the moment of their dispersion in the white water, the sized, chopped and dried strands contain 99% glass by weight.
- 15 17. The process as claimed in one of the preceding claims, characterized in that the strands comprise 10 to 300 filaments.
- 20 18. The process as claimed in one of the preceding claims, characterized in that the chopped strand/white water dispersion is permanently at a temperature ranging from 10°C to 50°C.
- 25 19. A chopped glass strand mat, the mass per unit area of which varies by less than 20% over its surface and at least 80% by weight of the filaments of which are in the form of strand comprising at least 10 filaments.
- 30 20. The mat as claimed in the preceding claim, characterized in that the mass per unit area varies by less than 10% over its surface.
- 35 21. The mat as claimed in the preceding claim, characterized in that the mass per unit area varies by less than 5% over its surface.
22. The mat as claimed in one of the preceding mat claims, characterized in that at least 90% by

weight of the filaments are in the form of strand comprising at least 10 filaments.

- 5        23. The mat as claimed in one of the preceding mat claims, characterized in that at least 90% by weight of the filaments are in the form of strand comprising at least 25 filaments.
- 10       24. The mat as claimed in one of the preceding mat claims, characterized in that it has a mass per unit area of between 50 and 1100 g/m<sup>2</sup>.
- 15       25. The mat as claimed in the preceding claim, characterized in that it has a mass per unit area of between 70 and 150 g/m<sup>2</sup>.